

AN 2001-255328 [26] WPIX Full-text

DNN N2001-181869 DNC C2001-076714

TI Coolant composition for refrigeration system.

DC E16 G04 J07 X27

IN ANDRYUSHIN, V M; BELYAEV, A YU; NAUMENKO, S N; ZOTIKOV, V S

PA (BELY-I) BELYAEV A YU

CYC 1

PI RU----2161637 C2 20010110 (200126)* C09K-005-04

ADT RU----2161637 C2 1999RU-0104064 19990226

PRAI 1999RU-0104064 19990226

IC ICM C09K-005-04

AB RU 2161637 C UPAB: 20010515

NOVELTY - Coolant composition for refrigeration system comprises coolant and surfactant.

DETAILED DESCRIPTION - Surfactant is a isobutane derivative with halogen-containing organic substituents of general formula: $XC(CR^nR^m(OR^p))_2CF(R^i(OR^q))$ X = F, Cl, Br, I, H

R' = -OCH₂(CF₂CF₂)_kH, -OCH₂H_{2k+1} R'' = -OCH₂(CF₂CF₂)_kH, -OCH₂H_{2k+1}, -O(CH₂)_nCkF_{2k+1} R''' = -CH₂(CF₂CF₂)_kH, -CH₂H_{2k+1}, -(CH₂)_nCkF_{2k+1} or methane tricarboxylic acid nonaester of unsymmetrical structure of general formula:

RC(H₂-n)X)OR'

provided that at least R' is other than defined above, or derivative of halogenated ethers of fluorolefins and alcohols of general formula: or mixture of said compounds in effective amount. Coolant includes at least one compound selected from group consisting of dichlorodifluoromethane, 1,1,1,2-tetrafluoroethane, mono chlorodifluoromethane, dichloromonofluoromethane, 1-chlorine-1,1- difluoroethane, 1,1-difluoroethane, 1,1,1,2-tetrafluorochloroethane, pentafluoroethane, trifluoromethane, octafluorocyclobutane, octafluoropropane, propane, isobutane, or mixture thereof.

USE - Refrigeration industry.

ADVANTAGE - Lower power consumption or refrigerating plant, higher wear resistance of piston pair of refrigerating plant and greater efficiency of compressor operation. Dwg. 0/0

FS CPI EPI

FA AB

MC CPI: E10-H01C; E10-H04A3; E10-H04B1; E10-J02D2; G04-B01; J07-A08

EPI: X27-F

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$R' = -OCH_2(CF_2CF_2)_kH$, $-OCH_2H_{2k+1}$ $R'' = -OCH_2(CF_2CF_2)_kH$, $-OCH_2H_{2k+1}$, $-O(CH_2)_nCH_2CF_2H_{2k+1}$ $R''' = -CH_2(CF_2CF_2)_kH$, $-CH_2H_{2k+1}$, $-(CH_2)_nCH_2CF_2H_{2k+1}$ or methane tricarboxylic acid nonaester of unsymmetrical structure of general formula:

$RC(H_2-n)X)OR'$

provided that at least R' is other than defined above, or derivative of halogenated ethers of fluorolefins and alcohols of general formula: or mixture of said compounds in effective amount. Coolant includes at least one compound selected from group consisting of dichlorodifluoromethane, 1,1,1,2-tetrafluoroethane, monochlorodifluoromethane, dichloromonofluoromethane, 1-chlorine-1,1-difluoroethane, 1,1-difluoroethane, 1,1,1,2-tetrafluorochloroethane, pentafluoroethane, trifluoromethane, octafluorocyclobutane, octafluoropropane, propane, isobutane, or mixture thereof.

USE - Refrigeration industry.

ADVANTAGE - Lower power consumption or refrigerating plant, higher wear resistance of piston pair of refrigerating plant and greater efficiency of compressor operation. Dwg.0/0

FS CPI EPI

FA AB

MC CPI: E10-H01C; E10-H04A3; E10-H04B1; E10-J02D2; G04-B01; J07-A08

EPI: X27-F